From: "Saric, James" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1563015DBEEE49A1AEA479C55929F0D1-JSARIC>
To: Patricia.White@CH2M.com
Jeff.Keiser@CH2M.com
CC: Frank.Dillon@CH2M.com
Date: 3/6/2013 2:01:10 PM
Subject: RE: PS... More on the Lower Duwamish Proposed Plan Region 10

Yes, the 1 meal/week for bass is 2 mg/kg and the bass in Morrow Lake are at 0.18 mg/kg. I think we need to show in the FS the relationship between sediment (330) and fish (72) and show that those fish levels are not attainable even when removing all sediment to below 1 ppm. Then show how the .33 number fits relative to other risk numbers (knee of the curve) to help justify its use. Then discuss fish background and the CTE angler to get to the 200.

Just my thoughts/rational.

Jim

From: Patricia.White@CH2M.com [mailto:Patricia.White@CH2M.com]
Sent: Wednesday, March 06, 2013 1:52 PM
To: Patricia.White@CH2M.com; Saric, James; Jeff.Keiser@CH2M.com
Cc: Frank.Dillon@CH2M.com
Subject: PS... More on the Lower Duwamish Proposed Plan Region 10

I see – the 0.05 – 2 mg/kg range for the fish advisory is 5 - 200 ug/kg.

The 63 ug/kg is just above the unrestricted threshold concentration, but well below the 1 meal/week upper limit.

From: White, Patricia/BOS
Sent: Wednesday, March 06, 2013 2:48 PM
To: 'Saric, James'; Keiser, Jeff/MKE
Cc: Dillon, Frank/DET
Subject: RE: More on the Lower Duwamish Proposed Plan Region 10

Jim,

Where did your bass PRG of 200 ug/kg come from? The fish tissue RBCs that CDM calculated for the HESA were 42 ug/kg (10-5 risk) and 72 ug/kg (HI= 1).

If you back-calculate a fish tissue concentration that corresponds to 330 ug/kg in sediment (using the BSAFs that CDM derived), the corresponding fish tissue concentration

is 63 ug/kg, which is within the range of the RBCs and therefore should meet the desired risk targets.

I agree that background should be considered more explicitly, especially if LTM shows that the fish tissue concentrations are not going to hit the risk targets.

I also agree that the LDR PRGs are not attainable!

From: Saric, James [mailto:saric.james@epa.gov]
Sent: Wednesday, March 06, 2013 2:31 PM
To: White, Patricia/BOS; Keiser, Jeff/MKE
Cc: Dillon, Frank/DET
Subject: RE: More on the Lower Duwamish Proposed Plan Region 10

SOOOO, for comparison at Kalamazoo our PCB sediment PRG is 330 ug/kg and our fish (Bass-pelagic) PRG is 200 ug/kg. A factor of 100 higher across the board. Every site is different, but we will have to discuss why we are 100 time higher (at least to CSTAG). I think we need to take a closer look at Bass and carp at upstream locations at both Morrow lake and upstream of Caresco dam. I am not sure if that data is handy anywhere. MDEQ has often said that Morrow Lake is not the perfect background, but maybe it is representative and I believe the bass in Morrow Lake are at 180 ug/kg. I think our sediment numbers can be justified and maybe we need to focus on fish background a little more in our evaluation.

Just my thoughts….besides the fact that I think those PRGs proposed for the Duwamish are not attainable!

Jim

From: Patricia.White@CH2M.com [mailto:Patricia.White@CH2M.com]
Sent: Thursday, February 28, 2013 9:09 AM
To: Jeff.Keiser@CH2M.com; Saric, James
Cc: Frank.Dillon@CH2M.com
Subject: More on the Lower Duwamish Proposed Plan Region 10

A few interesting things:

The PCB sediment PRG for the fish ingestion pathway is 2 ug/kg. This is based on “natural background” as defined in WA state regulations. Natural background is essentially for non-urban conditions. The modeling performed for the RI/FS indicates that natural background cannot be achieved in the lower Duwamish because of the urban quality of the incoming sediments. However, source control actions are ongoing and future background concentrations cannot be reliably predicted at this point in time, so Region 10 retained natural background as the PRG.

The fish tissue PRG for the fish ingestion pathway is based on a 10-6 risk level for the tribal RME scenario (a more conservative scenario than the one used for the Kzoo, which is based on 10-5 HESA), or non-urban background concentrations, whichever is higher. The non-urban background concentrations are highly uncertain, and

additional data collection is planned during RD to improve these estimates. The benthic fish PRG is 12 ppb (background) and the pelagic fish PRG is 1.8 ppb (risk-based).

The proposed plan states that refined PRGs will be provided in a ROD amendment or ESD, so they are essentially kicking the can down the road with respect to predicting future background conditions.

I also did not see the time frame associated with the fish ingestion RAO – it is probably included in the alternatives analysis.

Patty

From: Keiser, Jeff/MKE
Sent: Thursday, February 28, 2013 9:23 AM
To: Saric.James@epamail.epa.gov
Cc: Dillon, Frank/DET; White, Patricia/BOS
Subject: Lower Duwamish Proposed Plan Region 10

Jim, I pulled out the RAOs from the Lower Duwamish (Region 10) Proposed Plan, doesn't look like they included a time frame in the RAOs, it may be mentioned later in the document I have not read it all. I also included Table 8 of the PP which includes the PRGs for comparison to Kalamazoo, see attached. This was just released for public comment so it should be the most recent example of what is being done. A link to the document is included below.

JK

RAO:

The proposed cleanup in this plan addresses the third component of this strategy, cleanup of the in-waterway portion of the Site. It is based on four goals, which EPA calls Remedial Action Objectives (RAOs):

RAO 1: Reduce to protective levels the human health risks associated with consumption of contaminated Lower Duwamish Waterway resident fish and shellfish by adults and children with the highest potential exposure.

RAO 2: Reduce to protective levels the human health risks from direct contact (skin contact and incidental ingestion) to contaminated sediments during netfishing, clamming, and beach play.

RAO 3: Reduce to protective levels the risks to benthic invertebrates from exposure to contaminated sediments.

RAO 4: Reduce to protective levels the risks to crabs, fish, birds, and mammals from exposure to contaminated sediment, surface water, and prey.

http://www.epa.gov/region10/pdf/sites/ldw/pp/ldw_pp_022513.pdf

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